U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office **SEARCH REQUEST FORM** Requestor's Serial Name: Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevent citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevent claim(s). · 175 : 🖭 52 STAFF USE ONLY Date completed: Search Site Vendors Searcher; STIC CM-1 Terminal time: STN Elapsed time: _ Pre-S Dialog CPU time: Type of Search APS Total time: N.A. Sequence Geninfo Number of Searches: A.A. Sequence SDC Number of Databases: ∠ Structure DARC/Questel Bibliographic __Other

PTO-1590 (9-90)

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:16:22 ON 25 AUG 1998
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STRUCTURE FILE UPDATES: 21 AUG 98 HIGHEST RN 210281-59-7 DICTIONARY FILE UPDATES: 24 AUG 98 HIGHEST RN 210281-59-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 14, 1998

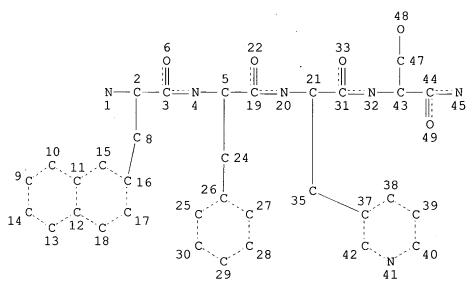
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Stereochemical name changes have been adopted and appear in CN's beginning 6/29/30. See the online news message for details.

** Notice ** If you recently ran a CSS search involving an AK-carbon connection, please enter NEWS at an arrow prompt for a message containing important details.

=> d stat que 134

L27 STR



NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

L29 1864 SEA FILE=REGISTRY SSS FUL L27

L31 STR

" core " structure

- ofen

```
0 7

2 C

N

N

6 C

G1

5
```

REP G1=(0-1) C
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

open

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L33 13 SEA FILE=REGISTRY SUB=L29 SSS FUL L31

L34 11 SEA FILE=REGISTRY ABB=ON PLU=ON L33 NOT NCNC2-SC4/ES

=> d his 134-

(FILE 'REGISTRY' ENTERED AT 13:54:53 ON 25 AUG 1998)
SAV L33 DELAC837A/A

L34 11 S L33 NOT NCNC2-SC4/ES

FILE 'HCAOLD' ENTERED AT 14:16:01 ON 25 AUG 1998

L35 0 S L34

FILE 'HCAPLUS' ENTERED AT 14:16:06 ON 25 AUG 1998 L36 3 S L34

¿ 3 references

FILE 'USPATFULL' ENTERED AT 14:16:08 ON 25 AUG 1998 L37 0 S L34

FILE 'REGISTRY' ENTERED AT 14:16:22 ON 25 AUG 1998

=> d 134 tot sqide can

L34 ANSWER 1 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 191611-38-8 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-(2-oxo-4-imidazolidinecarbonyl)-D-lysyl-L-leucyl-L-arginyl-L-prolyl-,
4,4'-methylenebis[3-hydroxy-2-naphthalenecarboxylate] (1:1) (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Naphthalenecarboxylic acid, 4,4'-methylenebis[3-hydroxy-, compd. with N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-(2-oxo-4-imidazolidinecarbonyl)-D-lysyl-L-leucyl-L-arginyl-L-prolyl-D-

alaninamide (1:1) (9CI)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified (modifications unspecified)

| type | | location | | | description |
|------------------|-----------------|----------|----------|--------|-------------|
| stereo stereo | Lys-6 Ala-10 | | <u>-</u> | D D | |

SEQ 1 AFASYKLRPA

MF C74 H97 C1 N18 O15 . C23 H16 O6

SR CA

LC. STN Files: CA, CAPLUS

CM 1

CRN 191611-36-6

CMF C74 H97 C1 N18 O15

Absolute stereochemistry.

PAGE 1-A

2 CM

CRN 130-85-8 CMF C23 H16 O6

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:66227

ANSWER 2 OF 11 REGISTRY COPYRIGHT 1998 ACS 191611-36-6 REGISTRY L34

RN

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-Dphenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-(2-oxo-4imidazolidinecarbonyl)-D-lysyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified (modifications unspecified)

type ---- location ----description

| stereo | Lys-6 | - | D | |
|--------|--------|---|---|--|
| stereo | Ala-10 | _ | D | |
| | | | | |

SEQ 1 AFASYKLRPA MF C74 H97 C1 N18 O15

CI COM SR CA

LCSTN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

$$(CH_2)_4 \xrightarrow{NH} O \xrightarrow{NH} O \xrightarrow{NH} NH_2$$

$$O \xrightarrow{NH} O \xrightarrow{NH$$

- 1 REFERENCES IN FILE CA (1967 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:66227

L34 ANSWER 3 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 186837-14-9 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-[(1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified

| type | loca | ation | description |
|--|---|---------------------------------|---|
| terminal mod. terminal mod. modification modification modification modification modification modification modification | Ala-1 Ala-10 - Ala-1 Phe-2 Ala-3 Lys-6 Lys-8 | - - - - - - - | N-acetyl C-terminal amide undetermined modification 2-naphthalenyl<2-Naph> chloro <cl> 3-pyridinyl<3Py> undetermined modification 1-methylethyl<i-pr></i-pr></cl> |

SEQ. 1 AFASYKLKPA

MF C78 H101 Cl N16 O16 . C2 H F3 O2

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

CM 1

CRN 186837-13-8

CMF C78 H101 Cl N16 O16

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 126:152828

L34 ANSWER 4 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 186837-13-8 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-[(1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl-(9CI) (CA INDEX NAME)

FS. PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified

| type | | location | description |
|------------------------------|-----------------|--------------|---|
| terminal mod. | Ala-1 Ala-10 | - | N-acetyl C-terminal amide |
| modification | Ala-1 | - | 2-naphthalenyl<2-Naph> |
| modification modification | Phe-2 Ala-3 | <u> </u> | <pre>chloro<cl> 3-pyridinyl<3Py></cl></pre> |
| modification modification | Lys-6 Lys-8 | - | undetermined modification 1-methylethyl <i-pr></i-pr> |

SEQ 1 AFASYKLKPA MF C78 H101 Cl N16 O16

CI COM SR CA

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

ANSWER 5 OF 11 REGISTRY COPYRIGHT 1998 ACS 164457-56-1 REGISTRY

D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-Dphenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-[(2-oxo-4-imidazolidinyl)carbonyl]-L-lysyl-N6-(3-pyridinylcarbonyl)-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl-, (R)- (9CI) (CA INDEX

PROTEIN SEQUENCE; STEREOSEARCH FS

SQL

NTE modified (modifications unspecified)

1 AFASKKLKPA C80 H109 Cl N18 O15 SEQ MF

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1: 123:48054 REFERENCE

L34 ANSWER 6 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 164361-58-4 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-(3-pyridinylcarbonyl)-L-lysyl-N6-[(2-oxo-4-imidazolidinyl)carbonyl]-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl-, (R)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C80 H109 C1 N18 O15

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-A

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

L34 ANSWER 7 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 164361-57-3 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-[(2-oxo-4-imidazolidinyl)carbonyl]-L-lysyl-N6-(3-pyridinylcarbonyl)-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl-, (S)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF . C80 H109 C1 N18 O15

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

ANSWER 8 OF 11 REGISTRY COPYRIGHT 1998 ACS 164361-35-7 REGISTRY L34

D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-Dphenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-(3-

pyridinylcarbonyl)-L-lysyl-N6-[(1,2,3,6-tetrahydro-2,6-dioxo-4pyrimidinyl)carbonyl]-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-

prolyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SOL 10

NTEmodified

| type | loc | ation | description |
|--|---|----------------------------|---|
| terminal mod. terminal mod. modification modification modification modification modification modification modification | Ala-1 Ala-10 Ala-1 Phe-2 Ala-3 Lys-5 Lys-6 Lys-8 | - - - - - - | N-acetyl C-terminal amide 2-naphthalenyl<2-Naph> chloro <cl> 3-pyridinyl<3Py> 3-pyridinylcarbonyl undetermined modification 1-methylethyl<i-pr></i-pr></cl> |

SEQ 1 AFASKKLKPA MF C81 H107 C1 N18 O16

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-A

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

L34 ANSWER 9 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 164361-34-6 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-[(1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinyl)carbonyl]-L-lysyl-N6-(3-pyridinylcarbonyl)-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified

| type | loca | ation | description |
|--|---|-------|---|
| terminal mod. terminal mod. modification modification modification modification modification modification modification | Ala-1 Ala-10 Ala-1 Phe-2 Ala-3 Lys-5 Lys-6 Lys-8 | | N-acetyl C-terminal amide 2-naphthalenyl<2-Naph> chloro <cl> 3-pyridinyl<3Py> undetermined modification 3-pyridinylcarbonyl 1-methylethyl<i-pr></i-pr></cl> |
| | | | |

SEQ. 1 AFASKKLKPA MF C81 H107 C1 N18 O16

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

L34 ANSWER 10 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 164361-33-5 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-(3-pyridinylcarbonyl)-L-lysyl-N6-[(1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl)carbonyl]-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl- (9CI) (CA INDEX NAME)

PROTEIN SEQUENCE; STEREOSEARCH FS

SQL 10 NTE modified

| type | location | | description |
|--|---|-----------------------|---|
| terminal mod. terminal mod. modification modification modification modification modification modification modification | Ala-1 Ala-10 Ala-1 Phe-2 Ala-3 Lys-5 Lys-6 Lys-8 | - - - - - | N-acetyl C-terminal amide 2-naphthalenyl<2-Naph> chloro <cl> 3-pyridinyl<3Py> 3-pyridinylcarbonyl undetermined modification 1-methylethyl<i-pr></i-pr></cl> |

SEQ 1 AFASKKLKPA

C81 H107 Cl N18 O16 MF

SR

LC. STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-A

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

L34 ANSWER 11 OF 11 REGISTRY COPYRIGHT 1998 ACS

RN 164361-32-4 REGISTRY

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-[(1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl)carbonyl]-L-lysyl-N6-(3-pyridinylcarbonyl)-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

NTE modified

| type | | location | description |
|---|---|--------------------------------------|---|
| terminal mod. terminal mod. modification modification modification modification modification modification | Ala-1 Ala-10 Ala-1 Phe-2 Ala-3 Lys-5 Lys-6 Lys-8 | - - - - - - - - | N-acetyl C-terminal amide 2-naphthalenyl<2-Naph> chloro <cl> 3-pyridinyl<3Py> undetermined modification 3-pyridinylcarbonyl 1-methylethyl<i-pr></i-pr></cl> |

SEQ. 1 AFASKKLKPA MF : C81 H107 C1 N18 O16

SR CA

LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

PAGE 1-B

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:48054

=> fil hcaplus

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FILE COVERS 1967 - 25 Aug 1998 VOL 129 ISS 9 FILE LAST UPDATED: 25 Aug 1998 (980825/ED)

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=> d bib abs hitrn tot 136

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L36 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 1998 ACS
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AN 1997:461530 HCAPLUS

DN 127:66227

TI new LH-RH antagonists with improved action

IN Bernd, Michael; Kutscher, Bernhard; Beckers, Thomas; Klenner, Thomas

PA Asta Medica Ag, Germany

SO Ger. Offen., 21 pp.

CODEN: GWXXBX

PI DE 19544212 A1 970605

AI DE 95-19544212 951128

DT Patent

LA German

OS MARPAT 127:66227

AB LH-RH antagonists R1CONHCH(CONR2R3)(CH2)nNHCOR4 [n = 3, 4; R1 = (un)substituted alkyl, alkoxy, aryl, heteroaryl, aralkyl, heteroaralkyl, aralkyloxy, heteroaryloxy; R2, R3 = H or (un)substituted alkyl, aralkyl, heteroaralkyl; R4 = substituted carbamoylalkyl or diaza heterocyclyl] were prepd. Thus, Ac-D-Na1(2)-D(pC1)Phe-D-Pa1(3)-Ser-Tyr-D-[.epsilon.-N'-(imidazolidin-2-on-4-yl)formyl]-Lys-Leu-Arg-Pro-D-Ala-NH2 [Na1(2) = 3-(2-naphthyl)alanyl, Pal(3) = 3-(3-pyridyl)alanyl] was prepd. by the solid phase method. The product had LH-RH receptor binding affinity of 0.306, vs. 0.202 for cetrorelix.

IT 191611-36-6P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (LH-RH antagonists with improved action)

IT 191611-38-8P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (LH-RH antagonists with improved action)

L36 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 1998 ACS

AN 1997:168540 HCAPLUS

DN 126:152828

TI LHRH antagonist synthetic peptide analogs for use as cancer inhibitors, contraceptives, or other pharmaceuticals

IN Roeske, Roger W.

PA Indiana University Foundation, USA; Roeske, Roger W.

```
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
PI WO 9640757 A2 961219
DS W: AU, CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE
AI WO 96-US9852 960607
```

PRAI US 95-480494 950607

DT Patent

LA English

OS MARPAT 126:152828

AB Many novel LH-releasing hormone (LHRH) antagonist peptide analogs or peptide mimetics, pharmaceutical compns. thereof, and methods of use thereof, are disclosed. The LHRH antagonist comprises a peptide compd., wherein a residue of the peptide compd. corresponding to the amino acid at position 6 of natural mammalian LHRH comprises a hydrophilic N-acyl moiety, a dipolar moiety, a sulfonium moiety, a receptor-modifying moiety or a small polar moiety. LHRH antagonist peptides are useful as inhibitors of sex hormone-dependent cancers (e.g., prostate cancer). LHRH antagonist peptides are also useful as contraceptive agents. The peptides can be used to treat other LHRH-related disorders as well, such as precocious puberty or premenstrual syndrome. The anti-ovulatory and histamine release activity of LHRH antagonists are compared. S.c. injections of LHRH antagonists suppressed plasma testosterone levels.

IT 186837-14-9P

RL: BAC (Biological activity or effector, except adverse); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (LHRH antagonist synthetic peptide analogs with pharmaceutical applications as cancer inhibitors or contraceptive agents)

L36 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 1998 ACS

AN 1995:503629 HCAPLUS

DN 123:48054

TI Antiovulatory antagonists of LHRH related to antide

AU Flouret, George; Arnold, Zdzislaw S.; Majewski, Tadeusz; Petousis, Nikolaos H.; Mahan, Kevin; Farooqui, Firdous; Blum, Katherine A.; Konopinska, Danuta; Natarajan, Swaminathan; Crich, David

CS Dep. Physiology, Northwestern Univ. Med. Sch., Chicago, IL, USA

SO J. Pept. Sci. (1995), 1(2), 89-105 CODEN: JPSIEI; ISSN: 1075-2617

DT Journal

LA English

The authors report 104 analogs of the potent antiovulatory antagonist of LHRH, N-Ac-D-Nal-D-Nal-D-Cpa-D-Pal-Ser-Lys(Nic)-D-Lys(Nic)-Leu-Llys-Pro-D-Ala-NH2, antide. The authors replaced the Nic group in Antide with other acyl substituents to modulate size, hydrophilicity or basicity of the mol., the authors also replaced the Lys residues with shorter basic amino acids, and made cyclic 5/6 analogs as well as position 5 or 6 dimers. The authors substituted Ilys8 with other alkyl groups and acyl derivs. When injected in 0.1% DMSO in water in a typical antiovulatory (AO) assay, Antide gives six rats ovulating out of eight (6/8) to 2 .mu.g, 4/8 at 4 .mu.g, and in the histamine release assay (HRA), ED50 is > 300 .mu.g/mL; [Lys(N-isobutyl)8]antide gave 2/8 at 2 .mu.g/rat; [Lys(8-Qis)5]Antide gave 1/8 at 1 .mu.g, and 0.8 at 2 .mu.g, and in the HRA ED50, 22 .mu.g/mL; [D-Lys(8-Qis)6]Antide gave 4/8 at 1 .mu.g

and 0/8 at 2 .mu.g, and in the HRA, ED50 was 100 - >300 .mu.g/mL; [Lys(2-Pyc)5, D-Lys(2-Pyc)6]Antide gave 2/8 at 1 .mu.g. The substitutions of the Nic groups of Antide at Lys5 or D-lys6 with 8-Qis or with 2-Pyc groups seem to give highly potent antiovulatory antagonists of LHRH and constitute significant new leads to generate potent antiovulatory compds. with moderate or low histamine release.

IT 164361-32-4P 164361-33-5P 164361-34-6P 164361-35-7P 164361-57-3P 164361-58-4P 164457-56-1P

RL: BAC (Biological activity or effector, except adverse); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(LH-RH analogs prepn., antiovulatory and histamine-releasing activity and physicochem. properties)